

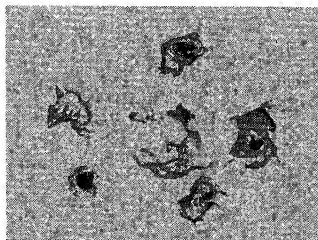
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Fig.1A.



r EHK-1 ecto/h IgG1 Fc
Gelfoam (6ug)

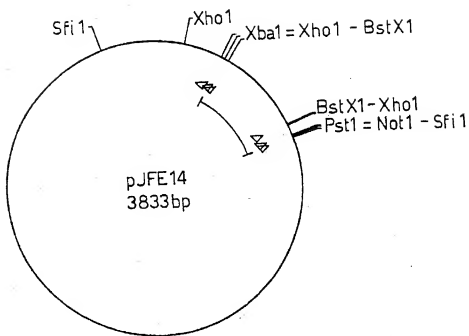
Fig.1B.

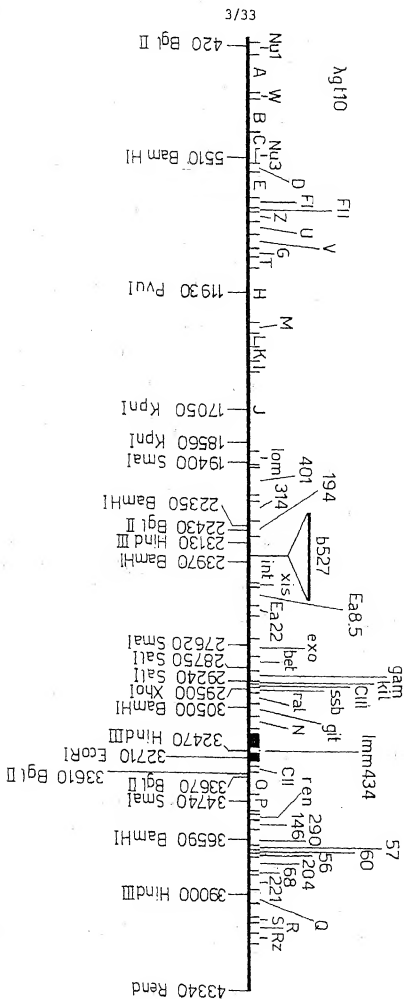


r TIE-2 ecto/h IgG1 Fc
Gelfoam (6ug)

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Fig.2





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Fig. 4A

	10	20	30	40	50	60	70	80
	*	*	*	*	*	*	*	*
CAGTGCCTCAGGAGGCTCCATGCTGAACGGTCACACAGAGAGGAACAATTAATCTCAGCTACTATGCAATTAATTC								
90	100	110	120	130	140	150	160	
*	*	*	*	*	*	*	*	*
TCAGTTTAAAGAGAAAAACATCATTCAGTGAATTAATAATTTTAATTTTGAACAAGCTTAACAATGGCTAG								
170	180	190	200	210	220	230	240	
*	*	*	*	*	*	*	*	*
TTTTCCTGATTCCTCTCAACGCTTCTTTGAGGGGAAAGTCAACCAACAGCAAGTTTACCTGAATTAAGAA								
250	260	270	280	290	300	310		
*	*	*	*	*	*	*		
CTAGTTTAAAGGCTCAGAGAAAGAGCAAGTTTGCAGAGGACAGGAGAGTGTCTGGCACTACA ATG ACA GTT								
							M	T
								V>
320	330	340	350	360	370			
*	*	*	*	*	*			
TTTC CTT TCC TTT GCT TTC CTC GCT GCC ATT CTG ACT CAC ATA GGG TGC AGC AAT CAG CGC								
F L- S F A F L A A I L T H I G C S N Q R>								
380	390	400	410	420	430			
*	*	*	*	*	*			
CGA AGT CCA GAA AAC AGT GGG AGA AGA TAT AAC CGG ATT CAA CAT GGG CAA TGT GCC TAC								
R S P E N S G R R Y N R I Q H G Q C A Y>								

Fig. 4B

440 * 450 * 460 * 470 * 480 * 490 *
 ACT TTC ATT CTT CCA GAA CAC GAT GGC AAC TGT CGT GAG AGT ACG ACA GAC CAG TAC AAC
 T F I L P E H D G N C R E S T T D Q Y N>
 500 * 510 * 520 * 530 * 540 * 550 *
 ACA AAC GCT CTG CAG AGA GAT GCT CCA CAC GTG GAA CCG GAT TTC TCT TCC CAG AAA CTT
 T N A L Q R D A P H V E P D F S S Q K L>
 560 * 570 * 580 * 590 * 600 * 610 *
 CAA CAT CTG GAA CAT GTG ATG GAA AAT TAT ACT CAG TGG CTG CAA AAA CTT GAG AAT TAC
 Q H L E H V M E N Y T Q W L Q K L E N Y>
 620 * 630 * 640 * 650 * 660 * 670 *
 ATT GTG GAA AAC ATG AAG TCG GAG AAG GCC CAG ATA CAG CAG AAT GCA GTT CAG AAC CAC
 I V E N M K S E M A A Q I Q Q N A V Q Q N H>
 680 * 690 * 700 * 710 * 720 * 730 *
 ACG GCT ACC AAG CTG GAG ATA GGA ACC AGC CTC CTC TCT CAG ACT GCA GAG CAG ACC AGA
 T A T M L E I G T S L L S Q T A E Q T R>

740	750	760	770	780	790
AAG CTG ACA GAT GTT GAG ACC CAG GTA CTA AAT CAA ACT TCT GCA CTT GAG ATA CAG CTG	* K L T D V E T Q V L N Q T S R L E I Q L>	* CTG GAG AAT TCA TTA TCC ACC TAC AAG CTA GAG AAG CAA CTT CTT CAA CAG ACA AAT GAA	* L E N S L S T Y K L E K Q L L Q Q T N E>	* 860 870 880 890 900 910	* ATC TTG AAG ATC CAT GAA AAA AAC AGT TTA TTA GAA CAT AAA ATC TTA GAA ATG GAA GGA
I L K I H E K N S L L E H K I L E M E G>	920 930 940 950 960 970	980 990 1000 1010 1020 1030	1040 1050 1060 1070 1080 1090	1100 1110 1120 1130 1140 1150	1160 1170 1180 1190 1200 1210
AAA CAC AAG GAA GAG TTG GAC ACC TTA AAG GAA GAG AAA GAG AAC CTT CAA GGC TTG GTT	* K H K E E L D T L K E E K E N L Q G L V>	* ACT CGT CAA ACA TAT ATA ATC CAG GAG CTG GAA AAG CAA TTA AAC AGA GCT AAC ACC AAC	* T R Q T T Y I I Q E L E K Q L N R A T T T N>		

1040	*	1050	*	1060	*	1070	*	1080	*	1090	*								
AAC	AGT	GTC	CTT	CAG	AAG	CAG	CAA	CTG	GAG	CTG	ATG	GAC	ACA	GTC	CAC	AAC	CTT	GTC	AAT
N	S	V	L	Q	K	Q	Q	L	E	L	M	D	T	V	H	N	L	V	N>
1100	*	1110	*	1120	*	1130	*	1140	*	1150	*								
CTT	TGC	ACT	AAA	GAA	GGT	GTT	TTA	CTA	AAG	GGG	GGA	AAA	AGA	GAG	GAA	GAG	AAA	CCA	TTT
L	C	T	K	E	G	V	L	L	K	G	G	K	R	E	E	E	K	P	F>
1160	*	1170	*	1180	*	1190	*	1200	*	1210	*								
AGA	GAC	TGT	GCA	GAT	GTA	TAT	CAA	GCT	GGT	TTT	AAT	AAA	AGT	GGA	ATC	TAC	ACT	AAT	TAT
R	D	C	A	D	V	Y	Q	A	G	F	N	K	S	G	I	Y	T	I	Y>
1220	*	1230	*	1240	*	1250	*	1260	*	1270	*								
AAT	AAT	AAT	ATG	CCA	GAA	CCC	AAA	AAG	GTG	TTT	TGC	AAT	ATG	GAT	GTC	AAT	GAG	GGG	GGT
I	N	N	M	P	E	P	K	K	V	F	C	N	M	D	V	N	G	G	G>
1280	*	1290	*	1300	*	1310	*	1320	*	1330	*								
TGG	ACT	GTA	ATA	CAA	CAT	CGT	GAA	GAT	GGA	AGT	CTA	GAT	TTTC	CAA	AGA	GGC	TGG	AAG	GAA
W	T	V	I	Q	H	R	E	D	G	S	L	D	F	Q	R	G	W	K	E>
1340	*	1350	*	1360	*	1370	*	1380	*	1390	*								
TAT	AAA	ATG	GGT	TTT	GGA	AAT	CCC	TCC	GGT	GAA	TAT	TGG	CTG	GGG	AAT	GAG	TTT	ATT	TTT
Y	K	M	G	F	G	N	P	S	G	E	Y	W	L	G	N	E	F	I	F>

Fig. 4E

1400 1410 1420 1430 1440 1450
 * * * * *
 GCC ATT ACC AGT CAG AGG CAG TAC ATG CTA AGA ATT GAG TTA ATG GAC TGG GAA GGG AAC
 A I T S Q R Q Y M L R I E L M D W E G N>
 1460 1470 1480 1490 1500 1510
 * * * * *
 CGA GCC TAT TCA CAG TAT GAC AGA TTC CAC ATA GGA AAT GAA AAG CAA AAC TAT AGG TTG
 R A Y S Q Y D R F H I G N E K Q N Y R L>
 1520 1530 1540 1550 1560 1570
 * * * * *
 TAT TTA AAA GGT CAC ACT GGG ACA GGA GGA AAA CAG AGC AGC CTG ATC TTA CAC GGT GOT
 Y L K G H T G T A G K Q S S L I L H G A>
 1580 1590 1600 1610 1620 1630
 * * * * *
 GAT TTC AGC ACT AAA GAT GCT GAT AAT GAC AAC TGT ATG TGC AAA TGT GTC CTC ATG TTA
 D F S T K D A D N D N C M C K C A L M L>
 1640 1650 1660 1670 1680 1690
 * * * * *
 ACA GGA GGA TGG TGG TTT GAT GCT TGT GGC CCC TCC AAT CTA AAT GGA ATG ATG TTA ACT
 T G G W W F D A C G P S N L N G M F Y T>

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Fig. 4F

1700	1710	1720	1730	1740	1750
* GCG GGA CAA AAC CAT GGA AAA CTG AAT GGG ATA AAG TGG CAC TAC TTC AAA GGG CCC AGT	* A G Q N H G K L N G I K W H Y F K G P S>				
1760	* 1770	* 1780	* 1790	* 1800	
TAC TCC TTA CGT TCC ACA ACT ATG ATG ATT GGA CCT TTA GAT TTT TGA	* Y S L R S T T M M I R P L D F *>				
1810	1820	1830	1840		
* AAGCCAAATGTCAGAGCATTTATGAAACAACA					
1850	1860	1870	1880	1890	1900
* AAGAAATCCGGAGAAGCTGCCAGGTGAGAAACTGTTGAAAACTTCAGAGCAACAATATTTCTCCCTCCAGCAATA					
1930	1940	1950	1960	1970	1980
* AGTGTACTTATGTGAAGTCAACCAAGTCTTTCGACCGTGAATCTGAGCCGTTTGAGTTCAACAAGAGTCTCTACTTGGGG					
2010	2020	2030	2040	2050	2060
* TGACAGTCTCAGTCGCTGCAGCTATAGAAAATCCACTGACTGTGGGCTTTAAAAAGGAAAGAAACTGCTGAGCTTGC					
2090	2100	2110	2120	2130	2140
* TGTGTCTAAACTACTACTGACCTTATTTTGAACATATGTGTAGCCAGATGATAAATATGTATATTTTC					

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Fig. 5A

	10	20	30	40	50	60	70	80
	*	*	*	*	*	*	*	*
CAGCTGACTCAGGCAAGCTTCATGCTGAACGGTCACACAGAGAGGAAACAATTAATCTCAGCTACTATGCAATTAATATC								
	90	100	110	120	130	140	150	160
*	*	*	*	*	*	*	*	*
TCAGTTTAAACGAAGAAAACATCATTCAGGTGAGTAATTAATAATTTAAATTTTGAACAAAGCTDACAATGCTAG								
	170	180	190	200	210	220	230	240
*	*	*	*	*	*	*	*	*
TTTTCTATGATTTCTTTCATAACGCTTTCTTTGAGGGGAAAGAGTCAACACAAACAGCATTTTACCTGAATTAAGAA								
	250	260	270	280	290	300	310	
*	*	*	*	*	*	*	*	
CTAGTTTAAAGAGTCAGAAAGAGAGCAAGTTTTCGAGAGGACAGAGAGAGTGTGCTGCAATACA ATG ACA GTT								
	320	330	340	350	360	370		
*	*	*	*	*	*	*	*	
TTTC CTTC TCC TTTC GCT TTTC CTC GCT GCC ATT CTG ACT CAC ATA GGG TGC AGC AAT CAG CGC								
F L S F A F L A A I L T H I G C S N Q R>								
	380	390	400	410	420	430		
*	*	*	*	*	*	*	*	
CGA AGT CCA GAA AAC AGT AGT GGG AGA AGA TAT AAC CGG ATT CAA CAT GGG CAA TGT GCC TAC								
R S P E N S G R R Y N R I Q H G Q C A Y>								

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Fig. 5C

800	810	820	830	840	850
* CTG GAG AAT TCA TTA TCC ACC TAC AAG CTA GAG AAG CAA CTT CTT CAA CAG AAT AAT GAA	* L E N S L S T Y K L E K Q L L Q Q T N E>				
860	870	880	890	900	910
* ATC TTG AAG ATC CAT GAA AAA AAG AGT TTA TTA GAA CAT AAA ATC TTA GAA ATG GAA GGA	* I L K I H E K N S L L E H K I L E M E G>				
920	930	940	950	960	970
* AAA CAC AAG AAG GAG TTG GAC ACC TTA AAG GAA GAG AAA GAG AAC CTT CAA GGC TTG GTT	* K H K E E L D T L K E E K E N L Q G L V>				
980	990	1000	1010	1020	1030
* ACT CGT CAA ACA TAT ATA ATC CAG GAG CTG GAA AAG CAA TTA AAC AGA GCT ACC ACC AAC	* T R Q T Y I I Q E L E K Q L N R A T T N>				
1040	1050	1060	1070	1080	1090
* AAC AGT GTC CTT CAG AAG CAG CAA CTG GAG CTT ATG GAC ACA GTC CAC AAC CTT GTC AAT	* N S V L Q K Q Q L E L M D T V H N L V N>				
1100	1110	1120	1130	1140	1150
* CTT TGC ACT AAA GAA GTT TTA CTA AAG GGA GGA AAA AGA GAG GAA GAG AAA CCA TTT AGA	* L C T K K E V L L K G G K R E E K P F R>				

[illegible]

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Fig. 5E

1520	1530	1540	1550	1560	1570
* TTA AAA GGT CAC ACT GGG ACA GGA AAA CAG AGC AGC AGC CTG ATC TTA CAC GGT GCT GAT L K G H T G T A G K Q S S L I L H G A D>	* 1580 TTC AGC ACT AAA GAT GCT GAT AAT AAT GAC AAC TGT ATG TGC TGC AAA TGT GCC CTC ATG TTA ACA F S T K D A D N D N C M C K C A L M L T>	* 1600	* 1610	* 1620	* 1630
1640	1650	1660	1670	1680	1690
* GGA GGA TGG TGG TTT GAT GCT TGT GGC CCC TTC AAT CTA AAT GGA ATG TTC TAT ACT GCG G G W W F D A C G P S N L N G M F Y T A>	* 1700	* 1710	* 1720	* 1730	* 1740
* GGA CAA AAC CAT GGA AAA CTG AAT GGG ATA AAG TGG CAC TAC TTC AAA GGG CCC AGT TAC G Q N H G K L N G I K W H Y F K G P S Y>	* 1760	* 1770	* 1780	* 1790	* 1800
* TCC TTA CGT TCC ACA ACT ATG ATG ATT CGA CCT TTA GAT TTT TGA S L R S T T M M I R P L D F >					

1810	1820	1830	1840
------	------	------	------

AAGCGCAATGTCAGAAAGCGATTATGAAAGCAACAAG

1850 * 1860 * 1870 * 1880 * 1890 * 1900 * 1910 * 1920 *

AAATCCGAGAGCTGCCAGGTGAGAACTGTTGAAACTTCAGAA.GCAACAATATTGTCTCCCTTCCAGCAATACT

1930 * 1940 * 1950 * 1960 * 1970 * 1980 * 1990 * 2000 *

GGTAGTTATGTGAAGTCACCAAGGTTCTTGACCGTGATCTGGAGCCGTTGAGTTCACAAGAGTCTCTACTTGGGCTGA

2010	*
2020	*
2030	*
2040	*
2050	*
2060	*
2070	*
2080	*

CA GTGCTCAGTGGCTCGACTATAGAAACTCCACTGACTGTGGGCTTTAAAGGGAAGAACTGCTGAGCTTGCTGT

2090	2100	2110	2120	2130	2140
------	------	------	------	------	------

GCTTCAACTACTACTGGACCTTATTTTGGAACTATGGTAGCCAGATGATAATATGTTATTC

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Fig. 6A

	10	20	30	40	50	60	70	80
	*	*	*	*	*	*	*	*
GAATTCGAGGTGGTGTATTCTCTCCAGCCTTGAGAGGGAACAACACTGTAGATCTGGAGAGGACAA								
90	100	110	120	130	140	150	160	
*	*	*	*	*	*	*	*	*
GGACCGTGAAGCTGCTCTGAAAAAGCTGACACAGCCCTCCCAAGTAGCAGGACTGTCTCCACTGCATCTGACAG								
170	180	190	200	210	220	230	240	
*	*	*	*	*	*	*	*	*
TTTACTGCAATGCTGAGAGACACAGCAGTAAAAACCAGTTTGTCTACTGTGAAAAAGAGAAAGAGACCTTTCATTG								
250	260	270	280	290	300	310	320	
*	*	*	*	*	*	*	*	*
ACGAGCCAGGCATGAGCAGCGTAGCAGCCCTTCGCTTCAGACGCGCAGCAGCTCGGAGACTCTGACGCTGTGTTGCCCTCA								
330	340	350	360	370	380			
*	*	*	*	*	*			
AGTTTGCTAAGCTGCTGTGTTATTACTGAGAAGAAG								
M	W	Q	I	V	F	T	L	S
390	400	410	420	430	440			
*	*	*	*	*	*			
GAT CTT GTC TTG GCC GCA GCC TAT AAC TTT CGG AAG AGC ATG GAC AGC ATA GGA AAG								
D	L	V	L	A	A	Y	N	F
R	K	S	M	D	S	I	G	K
450	460	470	480	490	500			
*	*	*	*	*	*			
AAG CAA TAT CAG GTC CAG CAT GGG TCC TGC AGC TAC ACT TTC CTC CTG CCA GAG ATG GAC								
K	Q	Y	Q	V	Q	H	G	S
C	S	Y	T	F	L	L	P	E
M	D							

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Fig. 6B

510	520	530	540	550	560
* AAC TGC CGC TCT TCC TCC AGC CCC TAC GTG TCC AAT GCT GTG CAG AGG GAC GCG CTC N C R S S S P Y V S N A V Q R D A P L>	* 570 580 590 600 610 620	* 630 640 650 660 670 680	* 690 700 710 720 730 740	* 750 760 770 780 790 800	* 810 820 830 840 850 860
GAA TAC GAT GAC TCG GTG CAG AGG CTG CAA GTG CTG GAG GAG ATC ATG GAA AAC AAC ACT E Y D D S V Q R L Q V L E N I M E N N T>	* 870 880 890 900 910 920	* 930 940 950 960 970 980	* 990 1000 1010 1020 1030 1040	* 1050 1060 1070 1080 1090 1100	* 1110 1120 1130 1140 1150 1160
CAG TGG CTA ATG AAG CTT GAG AAT TAT ATC CAG GAC AAC ATG AAG AAA GAA ATG GTA GAG Q W L M K L E N Y I Q D N M K K E M V E>	* 1170 1180 1190 1200 1210 1220	* 1230 1240 1250 1260 1270 1280	* 1290 1300 1310 1320 1330 1340	* 1350 1360 1370 1380 1390 1400	* 1410 1420 1430 1440 1450 1460
ATA CAG CAG AAT GCA GTA CAG AAC CAG ACG GCT GTG ATG ATA GAA ATA GGG ACA AAC CTG I Q Q N A V Q N Q T A V M I E I G T N L>	* 1470 1480 1490 1500 1510 1520	* 1530 1540 1550 1560 1570 1580	* 1590 1600 1610 1620 1630 1640	* 1650 1660 1670 1680 1690 1700	* 1710 1720 1730 1740 1750 1760
TTG AAC CAA ACA GCT GAG CAA ACG CCG AAG TTA ACT GAT GTG GAA GCC GAA GTA TTA AAT L N Q T A E Q T R K L T D V E A Q V L L N>	* 1770 1780 1790 1800 1810 1820	* 1830 1840 1850 1860 1870 1880	* 1890 1900 1910 1920 1930 1940	* 1950 1960 1970 1980 1990 2000	* 2010 2020 2030 2040 2050 2060
CAG ACC ACG AGA CTT GAA CTT CAG CTC TTG GAA CAC TCC CTC TCG ACA AAC AAA TTG GAA Q T T R L E L Q L L E H S L S T N K L E>	* 2070 2080 2090 2100 2110 2120	* 2130 2140 2150 2160 2170 2180	* 2190 2200 2210 2220 2230 2240	* 2250 2260 2270 2280 2290 2300	* 2310 2320 2330 2340 2350 2360

Fig. 6C

AAA	CAG	ATT	TTG	GAC	CAG	ACC	AGT	GAA	ATA	AAC	AAA	TTG	CAA	GAT	AAG	AAC	AGT	TTG	CTA	L>
K	Q	I	L	D	Q	T	S	E	I	N	K	L	Q	D	K	N	S	F	K	L>
930																				
GAA	AAG	AAG	GTC	CTA	GCT	ATG	GAA	GAC	AAG	CAC	CAC	ATC	ATC	CAA	CTA	CAG	TCA	ATA	AAA	GAA
E	K	K	V	L	A	M	E	D	K	H	I	I	Q	L	Q	S	I	K	E>	
990																				
GAG	AAA	GAT	CAG	CTA	CAG	GTC	TTA	GTA	TCC	AAG	CAA	AAT	TCC	ATC	ATT	GAA	GAA	CTA	GAA	
E	K	D	Q	L	Q	V	L	V	S	K	Q	N	S	I	I	E	E	L	E>	
1050																				
AAA	AAA	ATA	GTG	ACT	GCC	ACG	GNG	AAT	AAT	TCA	GTT	CTT	CAA	AAG	CAG	CAA	CAT	GAT	CTC	L>
K	K	I	V	T	A	T	V	N	N	S	V	L	Q	K	Q	Q	H	D	L>	
1110																				
ANG	GAG	ACA	GTT	AAT	AAC	TTA	CTG	ACT	ATG	ATG	TCC	ACA	TCA	AAC	TCA	GCT	AAG	GAC	CCC	P>
M	E	T	V	N	N	L	L	T	M	M	S	T	S	N	S	A	K	D	P>	
1170																				
ACT	GTT	GCT	AAA	GAA	GAA	CAA	ATC	AGC	TTG	ACA	GAC	TGT	GCT	GAA	GTA	TTG	AAA	TCA	GGA	
T	V	A	K	E	E	Q	I	S	F	R	D	C	A	E	V	F	K	S	G>	

[illegible]

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Fig. 6F

	1930	1940	1950	1960	1970	1980	1990	2000
CTGGGCACTGTGTCTCTTCGACCACAGAGGGCGTGTGCTGCGTCTGAGGGACCCACATGCTCCAGATTAGAGCTGT	*	*	*	*	*	*	*	*
2010	2020	2030	2040	2050	2060	2070	2080	
AACTTTATCCTTAACCTTGATCATCTTAACGAGCAAGAAGACCTTAACATCCATTATTTGATTTAGACAGAACA	*	*	*	*	*	*	*	
2090	2100	2110	2120	2130	2140	2150	2160	
CCTATGCAAGATGAACCCGAGGCTGAGATCAGACTGACAGTTTACAGAGCGTGTGCACACCAAGAAATGTTATGTG	*	*	*	*	*	*	*	
2170	2180	2190	2200	2210	2220	2230	2240	
CAAGTTTATCAGTTAATTAACCTGGAACAGAACACTTATGTATATACATATACAGATCATCTTGAACCTGCATTCTTCTGAG	*	*	*	*	*	*	*	
2250	2260	2270	2280					
CACTGTTTATACACGTGTATTAATACCCATATATGTCCTGAATTC	*	*	*	*				

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Fig.7.

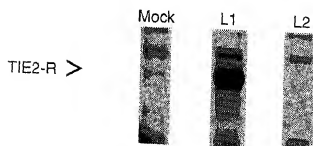
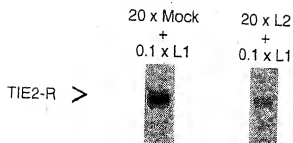
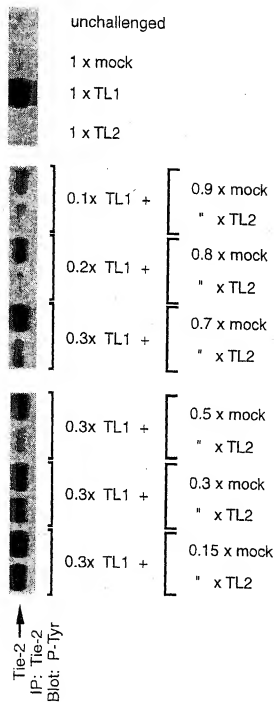


Fig.8.



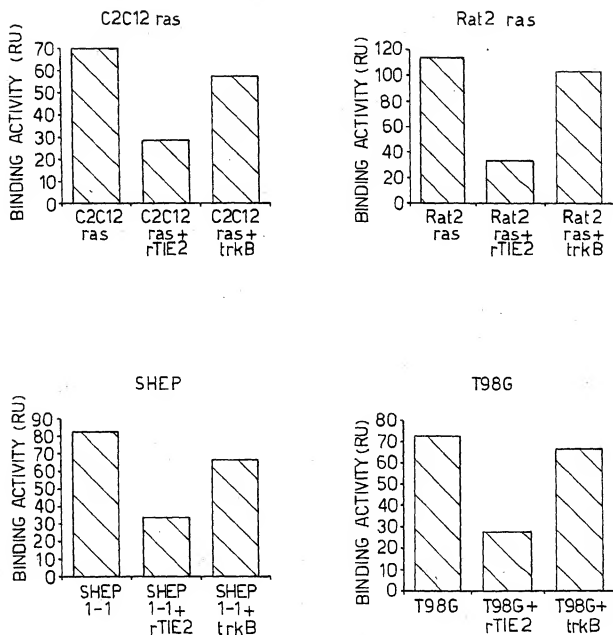
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Fig.9.



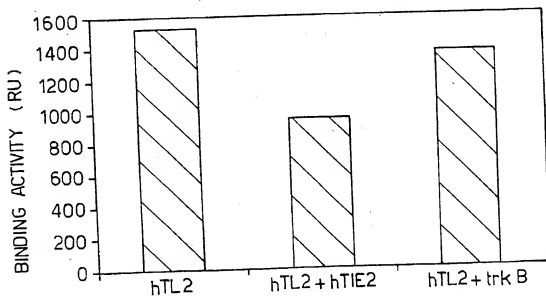
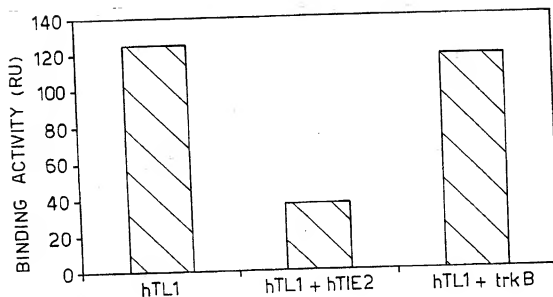
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Fig.10.



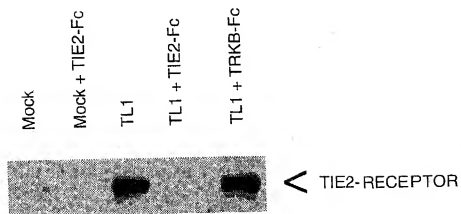
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Fig.11.



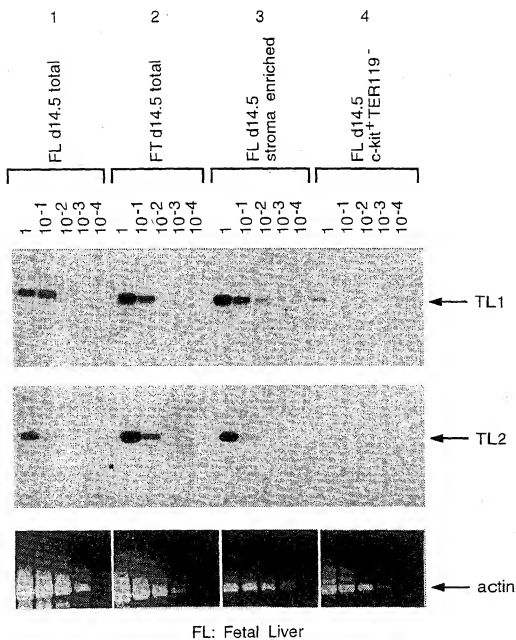
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Fig.12.



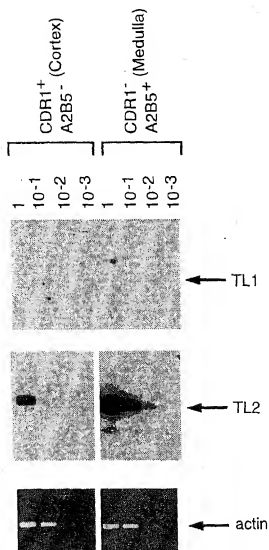
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Fig.13.



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Fig.14.



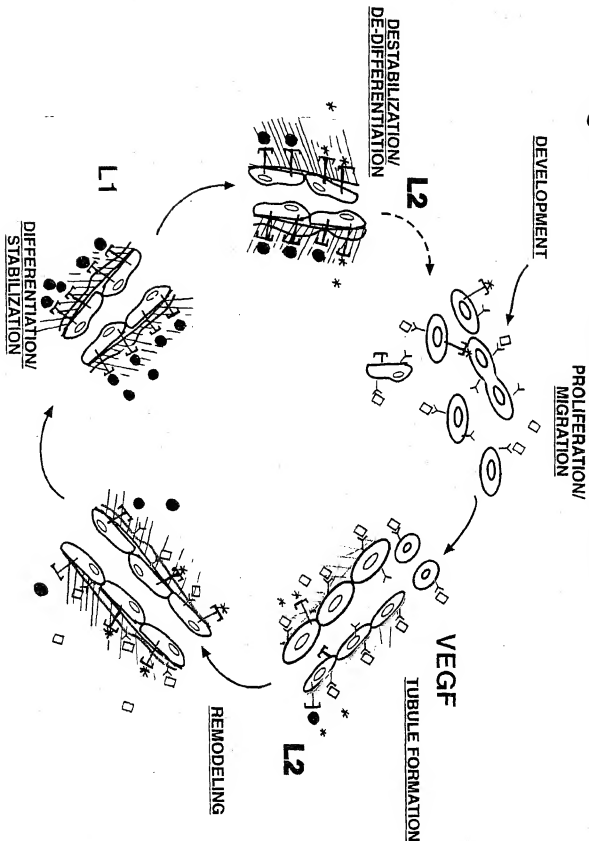
Fetal Thymus E17.5

CDR1⁺: Cortical stromal cells

A2B5⁺: Medulla stromal cells

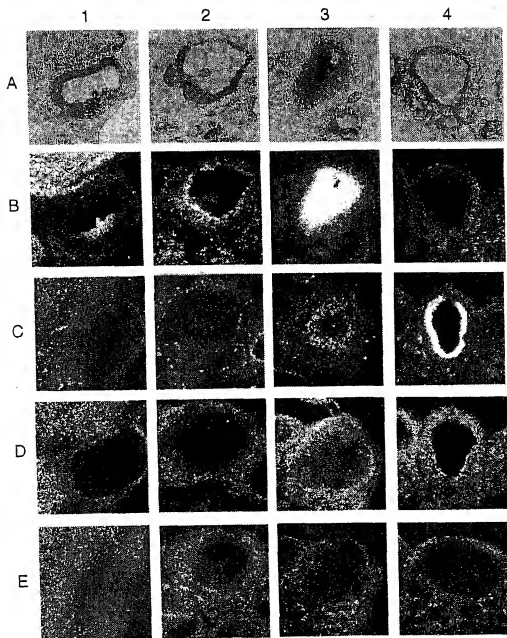
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Fig. 15. **ANGIOGENESIS**



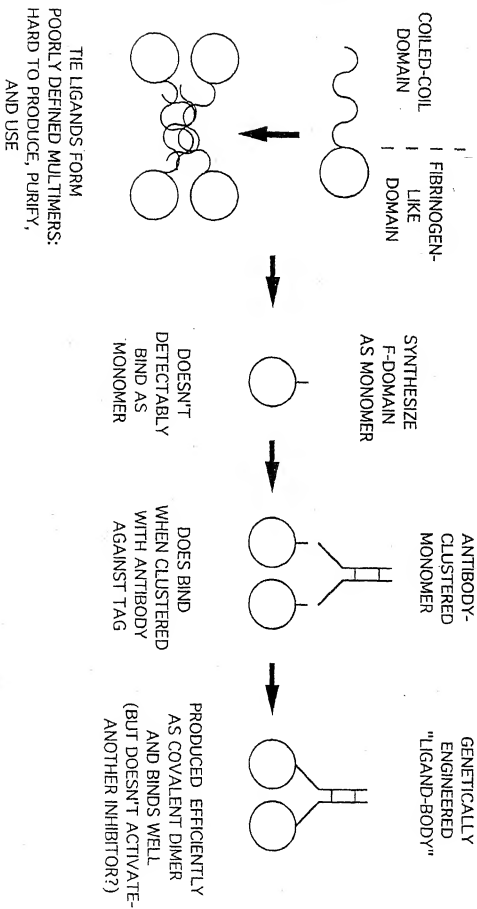
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Fig.16.



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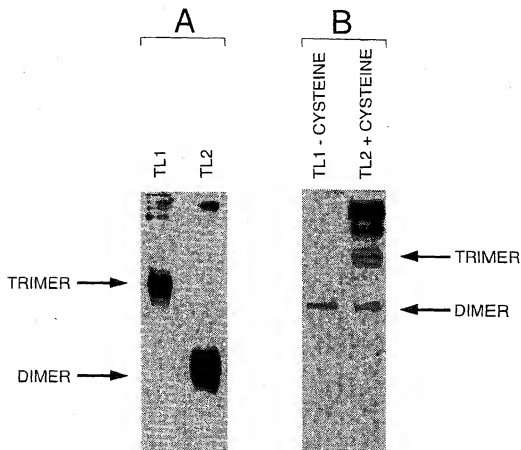
Fig. 17.
 ENGINEERING OF TIE2 "LIGAND-BODIES"



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Fig.18.

COVALENT MULTIMERIC STRUCTURE OF
TL1 AND TL2 AND THEIR INTERCONVERSION
BY THE MUTATION OF ONE CYSTEINE



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Fig.19. TIE2-IgG binding to
immobilized TL1

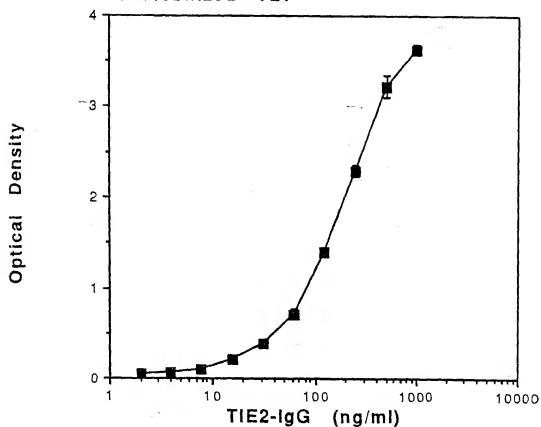


Fig.20. TL1-f-Fc binding to
immobilized Tie2 ectodomain

